ALADWAA Gem

2026

MATHEMATICS

نماذج اختبارات الأضواء

لشهـــر مـــارس

الصـف 1 الإعدادى

الفصل الدراسى الثانى

موقع الدكتور محمد رزق معلم الكيمياء التعليمي D.M.RAZK

MODEL I

10

1- Choose the correct answer: 2

a Double of the number 2^4 is ..... $(2^8, 2^6, 2^5, 2^{16})$

b $-4^3 =$ ..... $(64, -64, -16, -32)$

2- Answer each of the following: 8

a Find in simplest form the result of:

(1) $(x-2y)^2$:

.....

(2) $(a-5)(a+5)$:

.....

b Simplify $\sqrt{\frac{9}{4}} + \sqrt[3]{\frac{-27}{8}} + (\frac{9}{4})^0$

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c Write the result of: $(3.8 \times 10^8) \div (1.9 \times 10^{-6})$ in scientific notation.

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d If the expression $(x^3 - x^2 - 4x - m)$ is divisible by $x-3$. find the value of m

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MODEL 2

10

1- Choose the correct answer: (2)

a $\sqrt{4 + \ldots\ldots} = 5$ (1 , 6 , 21 , 12)

b If the volume of a cube is 64 cm^3, then its edge length = ... cm (4 , 6 , 8 , 16)

2- Answer each of the following: (8)

a Simplify to the simplest form $2x\ (3x - 1) + 3x\ (x + 2)$,then find the numerical value when $x = 1$

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b Find the solution set of $3\ (2x - 1) > 9$ in $\mathbb{N}$

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c Find in simplest form the value of: $\dfrac{(a)^{-3} \times (-a)^4}{(-a)^2 \times (a)^3}$

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d Find the area of a rhombus with diagonal lengths of 16 inches and 30 inches.

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MODEL 3

10

1- Choose the correct answer: 2

a $2(x+3) =$ ..... $(2x^2+6x\ ,\ 2x+3\ ,\ 2x+6\ ,\ x+6)$

b If $x-3>4$, which of the following could be the value of x ?. ..... $(-4\ ,\ 0\ ,\ 5\ ,\ 8)$

2- Answer each of the following: 8

a Which is greater in area: A square with diagonal length of 12 cm or a rhombus with diagonal lengths of 11 cm and 13 cm?.

b Find the solution set in $\mathbb{Z}$ for the inequality: $2(x+5)-7>9$

c Simplify the expression in the simplest form:
$(2n-1)^2-(2n+1)(2n-1)$, then find the numerical value when $n=-3$

d Arrange the following in an ascending order
16×10^{-6} , 1.5×10^{-5} , 0.8×10^{-5} , 14×10^{-4}

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MATHEMATICS

إجابات نماذج اختبارات الأضواء

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الصـف 1 الإعدادى

الفصل الدراسى الثانى

موقع الدكتور محمد رزق معلم الكيمياء التعليمي D.M.RAZK

MODEL I

1- Choose the correct answer:

a Double of the number 2^4 is ..... $(2^8, 2^6, 2^5, 2^{16})$

b $-4^3 =$ ..... $(64, -64, -16, -32)$

2- Answer each of the following:

a Find in simplest form the result of:

(1) $(x-2y)^2$:

$(x-2y)^2 = x^2 - 4xy + 4y^2$

(2) $(a-5)(a+5)$:

$(a-5)(a+5) = a^2 - 25$

b Simplify $\sqrt{\frac{9}{4}} + \sqrt[3]{\frac{-27}{8}} + (\frac{9}{4})^0$

$\sqrt{\frac{9}{4}} + \sqrt[3]{\frac{-27}{8}} + (\frac{9}{4})^0$

$= \frac{3}{2} + \frac{-3}{2} + 1$

$= 0 + 1 = 1$

c Write the result of: $(3.8 \times 10^8) \div (1.9 \times 10^{-6})$ in scientific notation.

$(3.8 \times 10^8) \div (1.9 \times 10^{-6})$

$= (3.8 \div 1.9) \times (10^8 \div 10^{-6})$

$= 2 \times 10^{14}$

d If the expression $(x^3 - x^2 - 4x - m)$ is divisible by $x - 3$. find the value of m

$$
\begin{array}{r|l}
 & x^2 + 2x + 2 \\
\hline
x - 3 & x^3 - x^2 - 4x - m \\
 & \ominus\ \oplus \\
 & x^3 - 3x^2 \\
\hline
 & 2x^2 - 4x - m \\
 & \ominus\ \oplus \\
 & 2x^2 - 6x \\
\hline
 & 2x - m \\
 & \ominus\ \oplus \\
 & 2x - 6 \\
\hline
 & 0 \quad\ 0
\end{array}
$$

Then, $m = 6$

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MODEL 2

1- Choose the correct answer:

a $\sqrt{4 + \ldots\ldots} = 5$ $\quad (1 , 6 , 21 , 12)$

b If the volume of a cube is 64 cm^3, then its edge length = ... cm $\quad (4 , 6 , 8 , 16)$

2- Answer each of the following:

a Simplify to the simplest form $2x\,(3x - 1) + 3x\,(x + 2)$,then find the numerical value when $x = 1$

$2x\,(3x - 1) + 3x\,(x + 2)$

$= 6x^2 - 2x + 3x^2 + 6x = 9x^2 + 4x$

The numerical value when $x = 1$ is

$9 \times 1^2 + 4 \times 1 = 9 + 4 = 13$

b Find the solution set of $3\,(2x - 1) > 9$ in $\mathbb{N}$

$3(2x - 1) > 9$

$6x - 3 > 9$

$6x > 12$

$x > 2$

The Solution set in $\mathbb{N} = \{3 , 4 , 5 , 6 , \cdots\}$

c Find in simplest form the value of: $\dfrac{(a)^{-3} \times (-a)^4}{(-a)^2 \times (a)^3}$

$$\frac{(a)^{-3} \times (-a)^4}{(-a)^2 \times (a)^3} = \frac{(a)^{-3} \times (a)^4}{(a)^2 \times (a)^3}$$

$$= \frac{(a)^{-3+4}}{(a)^{2+3}} = (a)^{-4}$$

d Find the area of a rhombus with diagonal lengths of 16 inches and 30 inches.

Area of rhombus $= \frac{1}{2} \times$ the product of the lengths of its diagonals.

$= \frac{1}{2} \times 16 \times 30 = 240$ square inches.

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MODEL 3

1- Choose the correct answer:

a $2(x+3) =$ ..... $(2x^2+6x \ , \ 2x+3 \ , \ 2x+6 \ , \ x+6)$

b If $x-3>4$, which of the following could be the value of x ?. ..... $(-4 \ , \ 0 \ , \ 5 \ , \ 8)$

2- Answer each of the following:

a Which is greater in area: A square with diagonal length of 12 cm or a rhombus with diagonal lengths of 11 cm and 13 cm?.

Area of square $= \frac{1}{2} \times$ square of the lengths of its diagonal

$= \frac{1}{2} \times 12 \times 12 = 72 \text{ cm}^2$

Area of rhombus $= \frac{1}{2} \times$ the product of the lengths of its diagonals

$= \frac{1}{2} \times 11 \times 13 = 71.5 \text{ cm}^2$

The area of a square is greater

b Find the solution set in $\mathbb{Z}$ for the inequality: $2(x+5)-7>9$

$2(x+5)-7>9$

$2x+10-7>9$

$2x+3>9$

$2x>6$

$x>3$

The Solution set is $\{4, 5, 6, \ldots.\}$

c Simplify the expression in the simplest form:

$(2n-1)^2-(2n+1)(2n-1)$, then find the numerical value when $n=-3$

$(2n-1)^2-(2n+1)(2n-1)$

$4n^2-4n+1-4n^2+1=-4n+2$

The numerical value when $n=-3$ is

$-4n+2=-4\times-3+2=12+2=14$

d Arrange the following in an ascending order

16×10^{-6} , 1.5×10^{-5} , 0.8×10^{-5} , 14×10^{-4}

Numbers in scientific notation are

1.6×10^{-5} , 1.5×10^{-5} , 8×10^{-6} , 1.4×10^{-3}

The order: 0.8×10^{-5} , 1.5×10^{-5} , 16×10^{-6} , 14×10^{-4}

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موقع الدكتور محمد رزق التعليمي

امسح الباركود بالموبيل لتثبيت التطبيق وتحميل كل الملازم مجانا وبسرعه

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موقع الدكتور محمد رزق
Dr.MoRizK